San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

MAR 30 2012

Gerardo C. Rios, Chief
Permits Office
Air Division
U.S. EPA - Region IX
75 Hawthorne St
San Francisco, CA 94105

Re: **Proposed Authorities to Construct / Certificate of Conformity (Minor Mod)**
**District Facility # S-3755**
**Project # S-1114686**

Dear Mr. Rios:

Enclosed for your review is the District's engineering evaluation of an application for Authorities to Construct for Seneca Western Minerals Corp., located within Seneca's Heavy Oil Western Stationary Source in Kern County, which has been issued a Title V permit. Seneca Western Minerals Corp. is requesting that a Certificate of Conformity, with the procedural requirements of 40 CFR Part 70, be issued with this project. Seneca has proposed installing two storage tanks and connecting them to the vapor control system listed on permit S-3755-20.

Enclosed is the engineering evaluation of this application and proposed Authorities to Construct # S-3755-20-2, '-28-0, and '-29-0 with Certificate of Conformity. After demonstrating compliance with the Authorities to Construct, the conditions will be incorporated into the facility's Title V permit through an administrative amendment.

Please submit your written comments on this project within the 45-day comment period that begins on the date you receive this letter. If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,

for David Warner
Director of Permit Services

Enclosures
cc: Kris Rickards, Permit Services

**Northern Region**
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

**Central Region (Main Office)**
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

**Southern Region**
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

www.valleyair.org www.healthyairliving.com

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

MAR 30 2012

Timothy Alburger
Seneca Western Minerals Corp.
2131 Mars Court
Bakersfield, CA 93308-6830

**Re: Proposed Authorities to Construct / Certificate of Conformity (Minor Mod)**
**District Facility # S-3755**
**Project # S-1114686**

Dear Mr. Alburger:

Enclosed for your review is the District's analysis of your application for Authorities to Construct for the facility identified above. You have requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. Seneca has proposed installing two storage tanks and connecting them to the vapor control system listed on permit S-3755-20.

After addressing any EPA comments made during the 45-day comment period, the Authorities to Construct will be issued to the facility with a Certificate of Conformity. Prior to operating with modifications authorized by the Authorities to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,

for David Warner
Director of Permit Services

Enclosures
cc: Kris Rickards, Permit Services

# San Joaquin Valley Air Pollution Control District
## Authority to Construct Application Review
Produced Water and Sand Dump Tanks

| | | | |
|---|---|---|---|
| Facility Name: | Seneca Western Minerals Corporation | Date: | April 2, 2012 |
| Mailing Address: | 2131 Mars Court | Engineer: | Kris Rickards |
| | Bakersfield, CA 93308 | Lead Engineer: | Allan Phillips |
| Contact Person: | Stephanie Pesek (Natural Resource Group) | | |
| Telephone: | (702) 694-8003 | | |
| Fax: | (702) 694-8010 | | |
| E-Mail: | sapesek@nrg-llc.com | | |
| Application #(s): | S-3755-20-2, '-28-0, '-29-0 | | |
| Project #: | S-1114686 | | |
| Deemed Complete: | December 7, 2011 | | |

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## I. Proposal

Seneca Western Minerals Corporation has requested Authority to Construct (ATC) permits for the installation of two 500 bbl welded storage tanks that will be connected to the existing vapor recovery system listed on ATC S-3755-20-1 (see Appendix A). One 500 bbl tank will be used for produced water disposal. The other 500 bbl tank will collect fluid from the heater treater sand dumps.

Pursuant to Rule 2201, Section 3.25.1, adding the new tanks to the vapor control system listed on S-3755-20 is not a New Source Review (NSR) modification of unit '-20; therefore, BACT, offset, and public notice requirements do not apply to this unit.

NSR requirements do apply to the new 500 bbl produced water tank (S-3755-28-0) and the new 500 bbl sand dump tank (S-3755-29-0). However, pursuant to District Policy SSP 2015, "Procedures for Quantifying Fugitive VOC Emissions at Petroleum and SOCMI Facilities", VOC emissions are not assessed for piping and components handling fluid streams with a VOC content of 10% or less by weight. The applicant has provided a tank headspace gas analysis that demonstrates a VOC content of less than 10% (see Appendix B). Therefore, there will be no increase in emissions associated with this project.

ATC S-3755-20-1 must be amended to include the new tanks served by the vapor control system. Since ATC S-3755-20-1 has yet to be implemented, the following condition will be listed on the new ATC (S-3755-20-2):

- This Authority to Construct (ATC) shall be implemented concurrently with or subsequently to ATC S-3755-20-0 and ATC S-3755-20-1. [District Rule 2201]

Additionally, ATCs S-3755-28-0 and '-29-0 must be implemented concurrently with ATC S-3755-20-2 because the new tanks will be connected to the existing vapor control system. Therefore, the following condition will be listed on ATCs S-3755-28-0 and '-29-0:

- This Authority to Construct (ATC) shall be implemented concurrently with ATC S-3755-20-2. [District Rule 2201]

This project was originally logged under facility S-1114 (Seneca Resources Corporation). Per an email request from the applicant, this project was moved to facility S-3755. The equipment authorized by this project is located at the Midway-Sunset (South) Maricopa tank battery, which the applicant considers facility S-3755. For District purposes, facilities S-3755 and S-1114 are considered one stationary source.

Seneca Western Minerals Corporation received their Title V Permit on March 31, 2012. This modification can be classified as a Title V minor modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. Seneca Western Minerals Corporation must apply to administratively amend their Title V permit.

## II. Applicable Rules

| | |
|---|---|
| Rule 2201 | New and Modified Stationary Source Review Rule (4/21/11) |
| Rule 2520 | Federally Mandated Operating Permits (6/21/01) |
| Rule 4001 | New Source Performance Standards (4/14/99) |
| Rule 4101 | Visible Emissions (2/17/05) |
| Rule 4102 | Nuisance (12/17/92) |
| Rule 4623 | Storage of Organic Liquids (05/19/05) |
| CH&SC 41700 | Health Risk Assessment |
| CH&SC 42301.6 | School Notice |

Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

## III. Project Location

The project is located at the Midway-Sunset (South) Maricopa Tank Battery. The location of the tank battery is NW/4 Section 18, Township 11N, Range 23W at Seneca Western Minerals Corporation's Heavy Oil Western stationary source. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

## IV. Process Description

The two new 500 bbl tanks are being added to the existing Midway-Sunset Maricopa tank battery. Tank S-3755-28 will store produced water disposed of from an existing clarifier tank (S-3755-27). Tank S-3755-29 will collect and store fluid from free water knock out (S-3755-24) and heater treater (S-1114-18) sand dumps. Both new tanks will be connected to the existing

vapor recovery system listed on S-3755-20. The vapor recovery system vents to the casing gas gathering system. The gas is then used as fuel for one of three steam generators (S-3755-11, S-3755-19, and S-1114-113) or is incinerated by a flare (S-3755-10).

See Process Flow Diagrams in Appendix C.

## V. Equipment Listing

Pre-Project Equipment Description:

S-3755-20-1: 1,500 BBL WELDED FIXED ROOF WASH TANK WITH VAPOR RECOVERY SYSTEM VENTED TO THE CASING GAS GATHERING SYSTEM AND APPROVED INCINERATION DEVICES STEAM GENERATORS S-3755-11, '19, S-1114-113, , AND/OR FLARE S-3755-10 AND SERVING TANKS S-3755-21, 22, 23, 24, 25, 26, AND 27

Proposed Modification:

S-3755-20-2: MODIFICATION OF A 1,500 BBL WELDED FIXED ROOF WASH TANK WITH VAPOR RECOVERY SYSTEM VENTED TO THE CASING GAS GATHERING SYSTEM AND APPROVED INCINERATION DEVICES STEAM GENERATORS S-3755-11, '19, S-1114-113, AND/OR FLARE S-3755-10 AND SERVING TANKS S-3755-21, 22, 23, 24, 25, 26, AND 27: CONNECT VAPOR RECOVERY SYSTEM TO 500 BBL PRODUCED WATER TANK S-3755-28 AND 500 BBL SAND DUMP TANK S-3755-29

Post Project Equipment Description:

S-3755-20-2: 1,500 BBL WELDED FIXED ROOF WASH TANK WITH VAPOR RECOVERY SYSTEM VENTED TO THE CASING GAS GATHERING SYSTEM AND APPROVED INCINERATION DEVICES STEAM GENERATORS S-3755-11, '19, S-1114-113, AND/OR FLARE S-3755-10 AND SERVING TANKS S-3755-21, 22, 23, 24, 25, 26, 27, 28, AND 29

S-3755-28-0: 500 BBL WELDED FIXED ROOF PRODUCED WATER TANK CONNECTED TO THE VAPOR RECOVERY SYSTEM LISTED ON S-3755-20

S-3755-29-0: 500 BBL WELDED FIXED ROOF SAND DUMP TANK CONNECTED TO THE VAPOR RECOVERY SYSTEM LISTED ON S-3755-20

## VI. Emission Control Technology Evaluation

The only pollutant of concern from the new tanks is VOC. Tanks S-3755-28 and S-3755-29 will be connected to the existing vapor control system listed under S-3755-20. The vapor control system collects vapors from the tanks and routes the vapors to the casing gas gathering system. The gas passes through the $H_2S$ scrubber and the casing vapor recovery compressor and will be used for steam generator fuel. In the event that the steam generators are down, the vapors will be flared. The VOC control efficiency of the vapor control system is at least 99%.

## VII. General Calculations

The applicant proposes to limit the VOC concentration of the vapors to 10% or less. In accordance with the CAPCOA "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" and District Policy SSP 2015, fugitive components handling fluids with a VOC concentration of 10% or less are assumed to have zero VOC emissions.

### A. Assumptions

Although calculations are not required for NSR purposes, they will be required for the Health Risk Assessment (HRA). The assumptions listed here will apply to the calculations performed for the HRA.

- Facility will operate 24 hours per day, 7 days per week, and 52 weeks per year.
- VOC emissions are the only pollutant of concern.
- VOC content of the vapors is 10% (worst case scenario).
- The fugitive emissions for each tank are calculated using California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities, CAPCOA/CARB, February 1999, average emissions factors.
- For tank S-3755-20, this proposal to add two new tanks to the existing vapor control system is not an NSR modification and does not require calculations.

### B. Emission Factors

Although calculations are not required for NSR purposes, fugitive emissions are calculated using average emissions factors from the "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" (CAPCOA/CARB) for the HRA.

### C. Calculations

#### 1. Pre-Project Potential to Emit (PE1)

Both tanks are new emissions units; therefore, PE1 = 0 for all pollutants for each tank (S-3755-28-0 and S-3755-29-0).

#### 2. Post Project Potential to Emit (PE2)

Pursuant to CAPCOA's "Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities" and District Policy SSP 2015, because the VOC content of the vapors is 10% or less, the fugitive components of the new produced water tank (S-3755-28-0) and the new sand dump tank (S-3755-29-0) are assumed to have zero VOC emissions. Therefore, PE2 = 0 for all pollutants for each tank.

### 3. Pre-Project Stationary Source Potential to Emit (SSPE1)

Pursuant to Section 4.9 of District Rule 2201, the Pre-Project Stationary Source Potential to Emit (SSPE1) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

Facilities S-3755 and S-1114 are considered to be the same stationary source. Combined facility emissions are already above the Offset and Major Source Thresholds for VOC emissions; therefore, SSPE1 calculations are not necessary.

### 4. Post Project Stationary Source Potential to Emit (SSPE2)

Pursuant to Section 4.10 of District Rule 2201, the Post Project Stationary Source Potential to Emit (SSPE2) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

Facilities S-3755 and S-1114 are considered to be the same stationary source. Combined facility emissions are already above the Offset and Major Source Thresholds for VOC emissions; therefore, SSPE2 calculations are not necessary.

### 5. Major Source Determination

Pursuant to Section 3.24 of District Rule 2201, a Major Source is a stationary source with post-project emissions or a Post Project Stationary Source Potential to Emit (SSPE2), equal to or exceeding one or more of the following threshold values. However, Section 3.24.2 states, "for the purposes of determining major source status, the SSPE2 shall not include the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site."

This source is an existing Major Source for VOC emissions and will remain a Major Source for VOC. No change in other pollutants are proposed or expected as a result of this project.

### 6. Baseline Emissions (BE)

The BE calculation (in lbs/year) is performed pollutant-by-pollutant for each unit within the project, to calculate the QNEC and if applicable, to determine the amount of offsets required.

Pursuant to Section 3.8 of District Rule 2201, BE = Pre-project Potential to Emit for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, located at a Major Source.

otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to Section 3.23 of District Rule 2201.

As shown in Section VII.C.5 above, the facility is a Major Source for VOC.

Unit S-3755-20 is not being modified; therefore, BE calculations are not required.

The produced water tank (S-3755-28-0) and the sand dump tank (S-3755-29-0) are new emissions units; therefore, BE = PE1 = 0 for all pollutants for each tank.

**7. SB 288 Major Modification**

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

Since this source is not included in the 28 specific source categories specified in 40 CFR 51.165, the increases in fugitive emissions are not included in the SB 288 Major Modification calculation.

Therefore, this project is not an SB 288 Major Modification.

**8. Federal Major Modification**

District Rule 2201, Section 3.18 states that Federal Major Modifications are the same as "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA.

Since this source is not included in the 28 specific source categories specified in 40 CFR 51.165, the increases in fugitive emissions are not included in the Federal Major Modification determination.

Therefore, this project is not a Federal Major Modification.

### 9. Quarterly Net Emissions Change (QNEC)

The QNEC is calculated solely to establish emissions that are used to complete the District's PAS emissions profile screen. For each permit unit, the QNEC shall be calculated as follows:

QNEC = [PE2 – BE] / 4, where:

QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr.
PE2 = Post Project Potential to Emit for each emissions unit, lb/yr.
BE = Baseline Emissions (per Rule 2201) for each emissions unit, lb/yr.

As shown in Sections VII.C.2 and VII.C.6 of this evaluation, the PE2 and BE are equal to zero for all criteria pollutants for each new tank. Therefore, QNEC = 0 lb/qtr for all criteria pollutants for each tank (S-3755-28 and S-3755-29).

## VIII. Compliance

## Rule 2201 New and Modified Stationary Source Review Rule

### A. Best Available Control Technology (BACT)

#### 1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless exempted pursuant to Section 4.2, BACT shall be required for the following actions:*

a. Any new emissions unit with a potential to emit exceeding two pounds per day,
b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,
c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day, and/or
d. Any new or modified emissions unit, in a stationary source project, which results in an SB288 Major Modification or a Federal Major Modification, as defined by the rule.

*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

##### a. New emissions units – PE > 2 lb/day

As seen in Section VII.C.2 of this evaluation, the applicant is proposing to install two new tanks (S-3755-28 and S-3755-29) each with a PE less than 2 lb/day for all criteria pollutants; therefore, BACT is not triggered.

##### b. Relocation of emissions units – PE > 2 lb/day

As discussed in Section I above, there are no emissions units being relocated from one stationary source to another; therefore, BACT is not triggered.

### c. Modification of emissions units – AIPE > 2 lb/day

As discussed in Section I above, there are no modified emissions units associated with this project; therefore, BACT is not triggered.

### d. SB 288/Federal Major Modification

As discussed in Section VII.C.7 above, this project does not constitute an SB 288 or Federal Major Modification for VOC emissions; therefore, BACT is not triggered.

## B. Offsets

### 1. Offset Applicability

Pursuant to Section 4.5.3, offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the Post Project Stationary Source Potential to Emit (SSPE2) equals to or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

The following table compares the post-project facility-wide annual emissions in order to determine if offsets will be required for this project.

| Offset Determination (lb/year) | | | | | |
|---|---|---|---|---|---|
| | $NO_X$ | $SO_X$ | $PM_{10}$ | CO | VOC |
| Post Project SSPE (SSPE2) | > 20,000 | > 54,750 | > 29,200 | > 200,000 | > 20,000 |
| Offset Threshold | 20,000 | 54,750 | 29,200 | 200,000 | 20,000 |
| Offsets triggered? | No | No | No | No | No |

### 2. Quantity of Offsets Required

As seen above, the facility is an existing Major Source for $NO_X$, $SO_x$, $PM_{10}$, CO, and VOC and the SSPE2 is greater than the offset thresholds; therefore, offset calculations will be required for this project. Since VOC is the only pollutant of concern for this project, only offsets for VOC will be calculated.

Per Sections 4.7.1 and 4.7.3, the quantity of offsets in pounds per year for VOC is calculated as follows for sources with an SSPE1 greater than the offset threshold levels before implementing the project being evaluated.

Offsets Required (lb/year) = ($\Sigma$[PE2 – BE] + ICCE) x DOR, for all new or modified emissions units in the project,

Where,

PE2 = Post Project Potential to Emit, (lb/year)
BE = Baseline Emissions, (lb/year)
ICCE = Increase in Cargo Carrier Emissions, (lb/year)
DOR = Distance Offset Ratio, determined pursuant to Section 4.8

BE = Pre-project Potential to Emit for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, Located at a Major Source.

otherwise,

BE = Historic Actual Emissions (HAE)

S-3755-28-0 (Produced Water Tank)

As calculated in Section VII.C.6 above, the Baseline Emissions (BE) from this unit are equal to the Pre-Project Potential to Emit (PE1) since the unit is a new emissions unit.

Offsets Required (lb/year) = ([PE2 – BE] + ICCE) x DOR

PE2 (VOC) = 0 lb/year
BE (VOC) = 0 lb/year
ICCE = 0 lb/year

Offsets Required (lb/year) = ([0 – 0] + 0) x DOR = 0 lb-VOC/year

S-3755-29-0 (Sand Dump Tank)

As calculated in Section VII.C.6 above, the Baseline Emissions (BE) from this unit are equal to the Pre-Project Potential to Emit (PE1) since the unit is a new emissions unit.

Offsets Required (lb/year) = ([PE2 – BE] + ICCE) x DOR

PE2 (VOC) = 0 lb/year
BE (VOC) = 0 lb/year
ICCE = 0 lb/year

Offsets Required (lb/year) = ([0 – 0] + 0) x DOR = 0 lb-VOC/year

As demonstrated in the calculations above, the amount of offsets for each unit is zero; therefore, offsets will not be required for this project.

## C. Public Notification

### 1. Applicability

Public noticing is required for:

a. New Major Sources, Federal Major Modifications, and SB288 Major Modifications,
b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
c. Any project which results in the offset thresholds being surpassed, and/or
d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant.

**a. New Major Sources, Federal Major Modifications, and SB288 Major Modifications**

New Major Sources are new facilities, which are also Major Sources. Since this is not a new facility, public noticing is not required for this project for New Major Source purposes.

As demonstrated in VII.C.7, this project does not constitute an SB 288 or Federal Major Modification; therefore, public noticing for SB 288 or Federal Major Modification purposes is not required.

**b. PE > 100 lb/day**

Applications which include a new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. As seen in Section VII.C.2 above, this project does not include any new emissions units which have daily emissions greater than 100 lb/day for any pollutant; therefore, public noticing for PE > 100 lb/day purposes is not required.

**c. Offset Threshold**

The following table compares the SSPE1 with the SSPE2 in order to determine if any offset thresholds have been surpassed with this project.

| Offset Threshold | | | | |
|---|---|---|---|---|
| Pollutant | SSPE1 (lb/year) | SSPE2 (lb/year) | Offset Threshold | Public Notice Required? |
| $NO_X$ | > 20,000 | > 20,000 | 20,000 lb/year | No |
| $SO_X$ | > 54,750 | > 54,750 | 54,750 lb/year | No |
| $PM_{10}$ | > 29,200 | > 29,200 | 29,200 lb/year | No |
| CO | > 200,000 | > 200,000 | 200,000 lb/year | No |
| VOC | > 20,000 | > 20,000 | 20,000 lb/year | No |

As detailed above, there were no thresholds surpassed with this project; therefore, public noticing is not required for offset purposes.

**d. SSIPE > 20,000 lb/year**

Public notification is required for any permitting action that results in a Stationary Source Increase in Permitted Emissions (SSIPE) of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE is calculated as the Post Project Stationary Source Potential to Emit (SSPE2) minus the Pre-Project Stationary Source Potential to Emit (SSPE1), i.e. SSIPE = SSPE2 – SSPE1. The values for SSPE2 and SSPE1 are calculated according to Rule 2201, Sections 4.9 and 4.10, respectively.

The SSIPE is compared to the SSIPE Public Notice thresholds in the following table:

| Stationary Source Increase in Permitted Emissions [SSIPE] – Public Notice | | | | | |
|---|---|---|---|---|---|
| Pollutant | SSPE2 (lb/year) | SSPE1 (lb/year) | SSIPE (lb/year) | SSIPE Public Notice Threshold | Public Notice Required? |
| $NO_x$ | > 20,000 | > 20,000 | 0 | 20,000 lb/year | No |
| $SO_x$ | > 54,750 | > 54,750 | 0 | 20,000 lb/year | No |
| $PM_{10}$ | > 29,200 | > 29,200 | 0 | 20,000 lb/year | No |
| CO | > 200,000 | > 200,000 | 0 | 20,000 lb/year | No |
| VOC | > 20,000 | > 20,000 | 0 | 20,000 lb/year | No |

As demonstrated above, the SSIPEs for all pollutants were less than 20,000 lb/year; therefore, public noticing for SSIPE purposes is not required.

**2. Public Notice Action**

As discussed above, this project will not result in emissions, for any pollutant, which would subject the project to any of the noticing requirements listed above. Therefore, public notice will not be required for this project.

## D. Daily Emission Limits (DELs)

Daily Emissions Limitations (DELs) and other enforceable conditions are required by Section 3.16 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. Per Sections 3.16.1 and 3.16.2, the DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

The following DEL conditions will be listed on each new tank permit (S-3755-28-0 and S-3755-29-0).

***Proposed Rule 2201 (DEL) Conditions:***

- The VOC content of the gas shall not exceed 10% by weight. [District Rule 2201]

- The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.6. [District Rules 2201 and 4623]

- Except as otherwise provided in this permit, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rules 2201 and 4623]

- All piping, valves, and fittings shall be constructed and maintained in leak-free condition. [District Rules 2201 and 4623]

- A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with EPA Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rules 2201 and 4623]

- Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623]

## E. Compliance Assurance

### 1. Source Testing

Pursuant to District Policy APR 1705, source testing is not required to demonstrate compliance with Rule 2201.

### 2. Monitoring

The new tanks are subject to quarterly VOC content monitoring and periodic leak inspections. The following conditions will be listed on each permit (S-3755-28-0 and S-3755-29-0) to ensure compliance:

- Operator shall conduct quarterly gas sampling for gas exiting the separator pressure vessel to qualify for exemption from fugitive component counts for components handling fluids with VOC content equal to or less than 10% by weight. If gas samples are equal to or less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District Rule 2201]

- All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623]

- Any component found to be leaking on two consecutive annual inspections is in violation of this rule, even if covered under the voluntary inspection and maintenance program. [District Rules 2201 and 4623]

### 3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201. The following conditions will be listed on each permit (S-3755-28-0 and S-3755-29-0) to ensure compliance:

- VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201]

- Operator shall maintain an inspection log containing the following: 1) type of component leaking; 2) date and time of leak detection, and method of detection; 3) date and time of leak repair, and emission level of recheck after leak is repaired; and 4) method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 2201 and 4623]

- All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201]

### 4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

## Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. The proposed modification is a Minor Modification to the Title V Permit.

In accordance with Rule 2520, these modifications:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
   a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
   b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and

5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
6. Do not seek to consolidate overlapping applicable requirements.

As discussed above, the facility has applied for a Certificate of Conformity (COC). Therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility may construct/operate under the ATC upon submittal of the Title V administrative amendment/minor modification application.

**Rule 4001 New Source Performance Standards (NSPS)**

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR) and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60. 40 CFR Part 60, Subparts K, Ka and Kb could potentially apply to the storage tanks located at this facility. However, pursuant to 40 CFR 60.110 (a) and 60.110(b), these subparts do not apply to storage vessels less than 40,000 gallons used for petroleum or condensate that is stored, processed, and/or treated at a drilling and production facility prior to custody transfer.

The proposed new produced water tank (S-3755-28) is only 500 barrels (21,000 gallons) and stores produced water. The proposed new sand dump tank (S-3755-29) is also only 500 barrels (21,000 gallons) and stores sand dump fluid. Therefore, the requirements of this subpart are not applicable to this project.

**Rule 4101 Visible Emissions**

Per Section 5.0, no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity). As long as the equipment is properly maintained and operated, visible emissions are not expected to exceed Ringelmann 1 or 20% opacity. Therefore, compliance with this rule is expected.

**Rule 4102 Nuisance**

Section 4.0 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. Therefore, compliance with this rule is expected.

**California Health & Safety Code 41700 (Health Risk Assessment)**

District Policy APR 1905 – Risk Management Policy for Permitting New and Modified Sources specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

As demonstrated above, there are no increases in emissions associated with this project because emissions from components handling fluid streams with a VOC content of 10% or less are assumed to be zero. However, pursuant to District FYI 283, "Quantifying Fugitive VOC Emissions for Use in Risk Management Reviews", emissions from such components must be estimated to perform a Risk Management Review (RMR). The applicant has provided the component counts for each new tank and vapor piping. Fugitive VOC emissions from these components are estimated using CAPCOA's "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities," Table IV-2C (Feb 1999), Average Emission Factors (see Appendix D).

An HRA is not required for a project with a total facility prioritization score of less than one. According to the Technical Services Memo for this project (Appendix E), the total facility prioritization score including this project was greater than one. Therefore, a health risk assessment was required to determine the short-term acute and long-term chronic exposure from this project.

The cancer risk for this project is shown below:

| HRA Summary | | |
|---|---|---|
| Units | Cancer Risk | T-BACT Required |
| S-2755-20-2, '-28-0, '-29-0 | 0.0221 per million | No |

**Discussion of T-BACT**

BACT for toxic emission control (T-BACT) is required if the cancer risk exceeds one in one million. As demonstrated above, T-BACT is not required for this project because the HRA indicates that the risk is not above the District's thresholds for triggering T-BACT requirements; therefore, compliance with the District's Risk Management Policy is expected.

District policy APR 1905 also specifies that the increase in emissions associated with a proposed new source or modification not have acute or chronic indices, or a cancer risk greater than the District's significance levels (i.e. acute and/or chronic indices greater than 1 and a cancer risk greater than 10 in a million). As outlined by the Technical Services Memo in Appendix E of this report, the emissions increases for this project were determined to be less than significant.

**Rule 4623 Storage of Organic Liquids**

This Rule applies to any tank with a capacity of 1,100 gallons or greater in which any organic liquid is placed, held, or stored.

Section 5.1.1 specifies the VOC control system requirements. An operator shall not place, hold, or store organic liquid in any tank unless such tank is equipped with a VOC control system identified in Table 1. The specifications for the VOC control system are described in Sections 5.2, 5.3, 5.4, 5.5, and 5.6.

| Tank Capacity (Gallons) | TVP and Crude Oil Throughput | | |
|---|---|---|---|
| | 0.5 psia to < 1.5 psia | 1.5 psia to < 11 psia | ≥11.0 psia |
| (Group A)<br><br>1,100 to 19,800 | Pressure-vacuum relief valve, or internal floating roof, or external floating roof, or vapor recovery system | Pressure-vacuum relief valve, or internal floating roof, or external floating roof, or vapor recovery system | Pressure vessel or vapor recovery system |
| (Group B)<br><br>19,800 to 39,600 | Pressure-vacuum relief valve, or internal floating roof, or external floating roof, or vapor recovery system | Internal floating roof, or external floating roof, or vapor recovery system | Pressure vessel or vapor recovery system |
| (Group C)<br><br>>39,600 | Internal floating roof, or external floating roof, or vapor recovery system | Internal floating roof, or external floating roof, or vapor recovery system | Pressure vessel or vapor recovery system |

The emissions from the tanks (S-3755-28 and '-29) will be controlled with a vapor recovery system listed on permit unit S-3755-20 with a control efficiency of at least 95%.

Section 5.6.1 requires fixed roof tanks with vapor recovery systems to be fully enclosed and maintained in a leak-free condition. The vapor recovery system shall consist of a closed system that collects all VOCs from the storage tank(s), and a VOC control device. The vapor recovery system shall be maintained in a leak-free condition. The VOC control device shall be one of the options listed in Sections 5.6.1.1 and 5.6.1.2. The following condition will be included on the permits to ensure compliance:

- The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device that reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.6. [District Rules 2201 and 4623]

- A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with EPA Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rules 2201 and 4623]

Section 5.6.2 requires any tank gauging or sampling device on a tank vented to the vapor recovery system to be equipped with a leak-free cover that shall be closed at all times except during gauging or sampling. Therefore, the following condition will be included on the permits to ensure compliance:

- Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623]

Section 5.6.3 requires all piping, valves, and fitting to be constructed and maintained in a leak-free condition. Therefore, the following condition will be included on the permits to ensure compliance:

- All piping, valves, and fittings shall be constructed and maintained in leak-free condition. [District Rules 2201 and 4623]

Section 6.0 specifies the administrative requirements of this rule, including inspection and recordkeeping requirements.

Compliance with the requirements of this rule is expected.

**California Health & Safety Code 42301.6 (School Notice)**

The District has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

**California Environmental Quality Act (CEQA)**

The California Environmental Quality Act (CEQA) requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The San Joaquin Valley Unified Air Pollution Control District (District) adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

  The District performed an Engineering Evaluation (this document) for the proposed project and determined that all project specific emission units are exempt from Best Available Control Technology (BACT) requirements. Furthermore, the District conducted

a Risk Management Review and concludes that potential health impacts are less than significant.

Issuance of permits for emissions units not subject to BACT requirements and with health impact less than significant is a matter of ensuring conformity with applicable District rules and regulations and does not require discretionary judgment or deliberation. Thus, the District concludes that this permitting action constitutes a ministerial approval. Section 21080 of the Public Resources Code exempts from the application of CEQA those projects over which a public agency exercises only ministerial approval. Therefore, the District finds that this project is exempt from the provisions of CEQA.

## IX. Recommendation

Compliance with all applicable rules and regulations is expected. Issue Authorities to Construct S-3755-20-2, S-3755-28-0, and S-3755-29-0 subject to the permit conditions on the attached draft Authorities to Construct in Appendix F.

## X. Billing Information

| Annual Permit Fees | | | |
|---|---|---|---|
| Permit Number | Fee Schedule | Fee Description | Annual Fee |
| S-3755-20-2 | 3020-05-D | 63,000 gallons | $185.00 |
| S-3755-28-0 | 3020-05-C | 21,000 gallons | $135.00 |
| S-3755-29-0 | 3020-05-C | 21,000 gallons | $135.00 |

## Appendices

A: Current ATC S-3755-20-1
B: Tank Headspace Gas Analysis
C: Process Flow Diagram
D: Fugitive Emissions Calculations
E: Technical Services Memo
F: Draft Authorities to Construct
G: Emission Profiles

# APPENDIX A

# Authority to Construct S-3755-20-1

San Joaquin Valley
Air Pollution Control District

# AUTHORITY TO CONSTRUCT

DRAFT

**PERMIT NO:** S-3755-20-1 **ISSUANCE DATE:** DRAFT

**LEGAL OWNER OR OPERATOR:** SENECA WESTERN MINERALS CORP.
**MAILING ADDRESS:** 2131 MARS CT
BAKERSFIELD, CA 93308

**LOCATION:** HEAVY OIL WESTERN

**EQUIPMENT DESCRIPTION:**
MODIFICATION OF 1,500 BBL WELDED FIXED ROOF WASH TANK WITH VAPOR RECOVERY SYSTEM VENTED TO THE CASING GAS GATHERING SYSTEM AND APPROVED INCINERATION DEVICES STEAM GENERATORS S-3755-11, '19, S-1114-113, '130, AND/OR FLARE S-3755-10: CONNECT VAPOR RECOVERY SYSTEM TO 600 BBL CLARIFIER TANK S-3755-27 AND ADD LIST OF TANKS SERVED BY VAPOR RECOVERY

## CONDITIONS

1. Within 90 days of startup of the equipment authorized by this Authority to Construct, Permits to Operate S-3755-6, '7, '8, and '9 shall be surrendered to the District and the associated equipment shall be removed or rendered inoperable. [District Rule 2201]
2. This Authority to Construct (ATC) shall be implemented concurrently with or subsequently to ATC S-3755-20-0. [District Rule 2201]
3. Authority to Construct (ATC) S-1114-113-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this Authority to Construct. [District Rule 2201]
4. The VOC content of the gas shall not exceed 10% by weight. [District Rule 2201]
5. Operator shall conduct quarterly gas sampling for gas exiting the separator pressure vessel to qualify for exemption from fugitive component counts for components handling fluids with VOC content equal to or less than 10% by weight. If gas samples are equal to or less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District Rule 2201]
6. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
S-3755-20-1 : Jan 20 2012 2:56PM – SEIFERTJ : Joint Inspection NOT Required

7. The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device the reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.6. [District Rules 2201 and 4623]
8. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623]
9. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with EPA Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623]
10. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623]
11. Except as otherwise provided in this permit, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rules 2201]
12. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623]
13. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rules 2201 and 4623]
14. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 2201 and 4623]
15. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 1070]

# APPENDIX B

# Tank Headspace Gas Analysis

**SENECA RESOURCES**
**PTO S-3755**
**Gas Analysis**

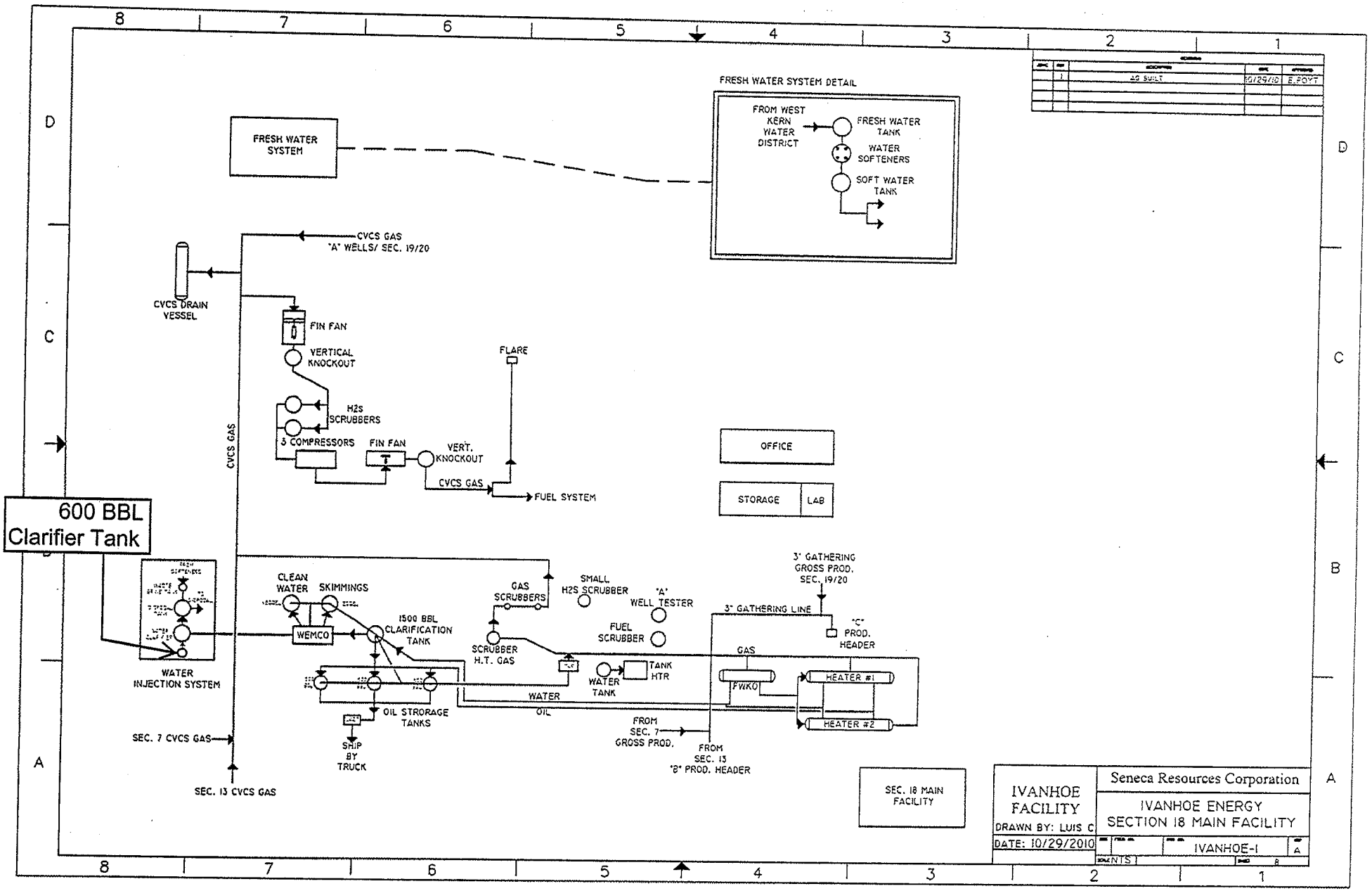
Sample Date: 10.26.10
Facility: Midway-Sunset Maricopa Tank Battery
Stream: Tank Headspace Gas

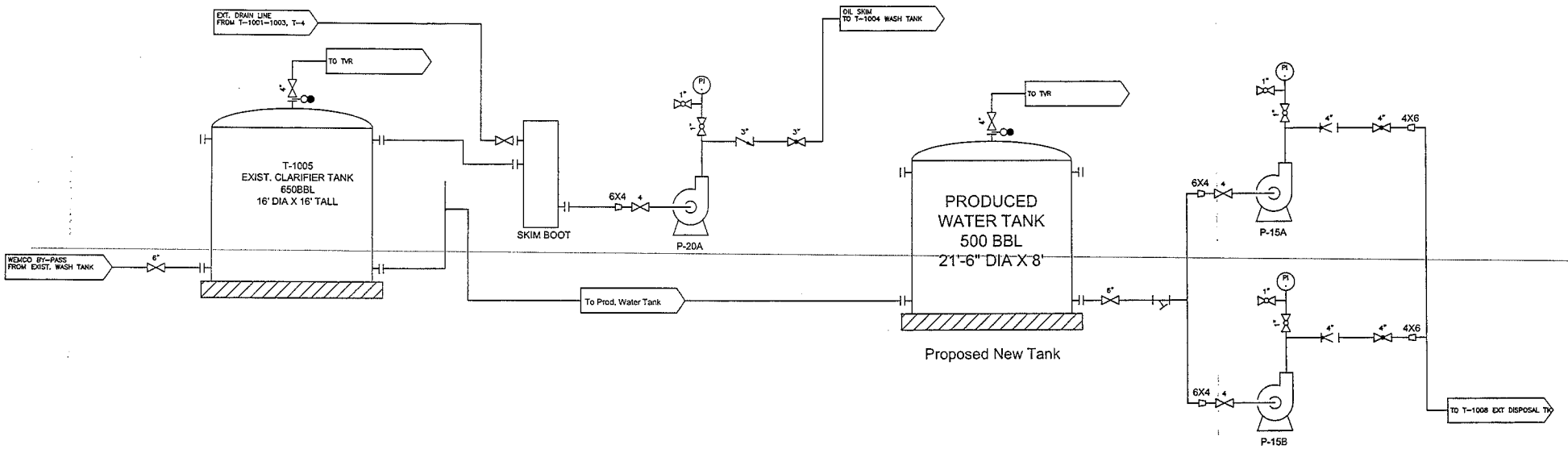
| Compound | Formula | Mole Weight | Mole %* | Total Weight | Percent Weight |
|---|---|---|---|---|---|
| 01. Oxygen | 02 | 31.999 | 0.118 | 3.776 | 0.137% |
| 02. Nitrogen | N2 | 28.013 | 0.604 | 18.601 | 0.677% |
| 03. Carbon Dioxide | CO2 | 44.010 | 36.468 | 1,604.957 | 58.394% |
| 04. Methane | CH4 | 16.043 | 58.179 | 933.368 | 33.959% |
| 05. Ethane | C2H6 | 30.070 | 0.696 | 20.929 | 0.761% |
| 06. Propane | C3H8 | 44.097 | 0.303 | 13.361 | 0.486% |
| 07. Isobutane | C4H10 | 58.124 | 0.097 | 5.638 | 0.205% |
| 08. n-Butane | C4H10 | 58.124 | 0.265 | 15.403 | 0.560% |
| 09. Isopentane | C5H12 | 72.151 | 0.068 | 4.906 | 0.179% |
| 10. n-Pentane | C5H12 | 72.151 | 0.103 | 7.432 | 0.270% |
| 11. Hexane... | C6+ | 86.178 | 1.394 | 120.132 | 4.371% |
| | Totals | | 98.355 | 2,748.500 | 1.000 |

VOC 6.07%

# APPENDIX C

## Process Flow Diagrams


FRESH WATER SYSTEM DETAIL
FROM WEST KERN WATER DISTRICT
FRESH WATER TANK
WATER SOFTENERS
SOFT WATER TANK
FRESH WATER SYSTEM
CVCS GAS "A" WELLS/ SEC. 19/20
CVCS DRAIN VESSEL
FIN FAN
VERTICAL KNOCKOUT
H2S SCRUBBERS
3 COMPRESSORS
FIN FAN
VERT. KNOCKOUT
FLARE
CVCS GAS
FUEL SYSTEM
OFFICE
STORAGE
LAB
600 BBL Clarifier Tank
WATER INJECTION SYSTEM
CLEAN WATER
SKIMMINGS
WEMCO
1500 BBL CLARIFICATION TANK
GAS SCRUBBERS
SCRUBBER H.T. GAS
SMALL H2S SCRUBBER
"A" WELL TESTER
FUEL SCRUBBER
3" GATHERING GROSS PROD. SEC. 19/20
3" GATHERING LINE
"C" PROD. HEADER
GAS
FWKO
HEATER #1
HEATER #2
TANK HTR
WATER TANK
WATER
OIL
OIL STRORAGE TANKS
SHIP BY TRUCK
SEC. 7 CVCS GAS
SEC. 13 CVCS GAS
FROM SEC. 7 GROSS PROD.
FROM SEC. 13 "B" PROD. HEADER
SEC. 18 MAIN FACILITY
IVANHOE FACILITY
DRAWN BY: LUIS C
DATE: 10/29/2010
Seneca Resources Corporation
IVANHOE ENERGY
SECTION 18 MAIN FACILITY
IVANHOE-1
NTS




| NUMBER | SHT | REFERENCE DRAWINGS |
|---|---|---|
| | | |

SENECA RESOURCES

| REV. NO. | DATE | REVISED (DESTROY ALL PRINTS BEARING EARLIER DATE) | REV. BY | CKD. BY | APP'D |
|---|---|---|---|---|---|
| A | 10/14/11 | | | | |

APPROVED BY

BY _____
DATE _____

BY _____
DATE _____

BY _____
DATE _____

SCALE: NONE
PLOT AT:
ENGINEER:
DATE STARTED:

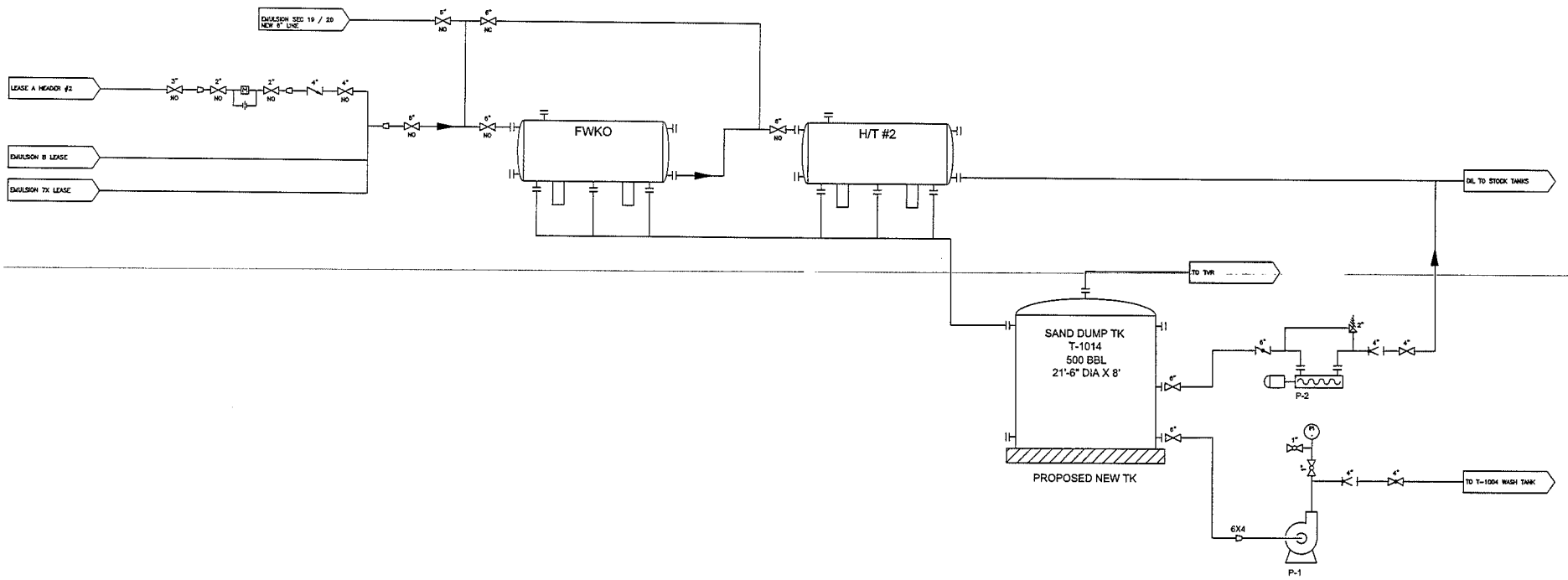
BY: SGM
LAYER(S):
CHANGED BY:
LAST CHANGED:

T-1006 REPLACEMENT
SWM SECTION 18 FACILITIES
SENECA SMWSS LEASE
SECTION 18 T11N/R23W

SM-101811-01

REVISION: 0

SHEET: 1/1

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SENECA RESOURCES

| REV. NO. | DATE | REVISED (DESTROY ALL PRINTS BEARING EARLIER DATE) | REV. BY | CKD. BY | APP'D |
|---|---|---|---|---|---|
| A | 10/14/11 | | | | |

APPROVED BY

BY _____
DATE _____

BY _____
DATE _____

BY _____
DATE _____

SCALE: NONE
PLOT AT: _____
ENGINEER: _____
DATE STARTED: _____

BY: SCM
LAYER(S): _____
CHANGED BY: _____
LAST CHANGED: _____

FWKO SAND DUMP TANK PFD
SWM H/T FWKO PIPING
SENECA SMWSS LEASE
SECTION 18 T11N/R23W

SM-101711-01

| REVISION | SHEET |
|---|---|
| 0 | 1/1 |

# APPENDIX D

# Fugitive Emissions Calculations

# Fugitive Emission Calculations: S-3755-28-0

**Seneca Western Minerals Corporation**
**S3755, 1114686**

EPA Protocol for Equipment Leak Emission Estimate
*Table 2-4. Oil and Gas Production Operations*
*Average Emission Factors*

Weight percentage of VOC in the total organic compounds in gas (neglect non-organics)? 10 %
Weight percentage of VOC in the total organic compounds in oil (neglect non-organics)? 100 %

| Equipment Type | Service | Screening Value EF - TOC (kg/hr/source) | (lb/day/source) | Component Count | VOC emissions (lb/day) |
|---|---|---|---|---|---|
| Valves | Gas | 4.5E-03 | 2.381E-01 | 15 | 0.36 |
| | Heavy Oil | 8.4E-06 | 4.445E-04 | 0 | 0.00 |
| | Light Oil | 2.5E-03 | 1.323E-01 | 0 | 0.00 |
| | Water/Oil | 9.8E-05 | 5.185E-03 | 0 | 0.00 |
| Pump Seals | Gas | 2.4E-03 | 1.270E-01 | 0 | 0.00 |
| | Heavy Oil | N/A | N/A | 0 | N/A |
| | Light Oil | 1.3E-02 | 6.878E-01 | 0 | 0.00 |
| | Water/Oil | 2.4E-05 | 1.270E-03 | 0 | 0.00 |
| Others | Gas | 8.8E-03 | 4.656E-01 | 20 | 0.93 |
| | Heavy Oil | 3.2E-05 | 1.693E-03 | 0 | 0.00 |
| | Light Oil | 7.5E-03 | 3.968E-01 | 0 | 0.00 |
| | Water/Oil | 1.4E-02 | 7.408E-01 | 0 | 0.00 |
| Connectors | Gas | 2.0E-04 | 1.058E-02 | 105 | 0.11 |
| | Heavy Oil | 7.5E-06 | 3.968E-04 | 0 | 0.00 |
| | Light Oil | 2.1E-04 | 1.111E-02 | 0 | 0.00 |
| | Water/Oil | 1.1E-04 | 5.820E-03 | 0 | 0.00 |
| Flanges | Gas | 3.9E-04 | 2.064E-02 | 100 | 0.21 |
| | Heavy Oil | 3.9E-07 | 2.064E-05 | 0 | 0.00 |
| | Light Oil | 1.1E-04 | 5.820E-03 | 0 | 0.00 |
| | Water/Oil | 2.9E-06 | 1.534E-04 | 0 | 0.00 |
| Open-ended Lines | Gas | 2.0E-03 | 1.058E-01 | 0 | 0.00 |
| | Heavy Oil | 1.4E-04 | 7.408E-03 | 0 | 0.00 |
| | Light Oil | 1.4E-03 | 7.408E-02 | 0 | 0.00 |
| | Water/Oil | 2.5E-04 | 1.323E-02 | 0 | 0.00 |

| | |
|---|---|
| **Total VOC Emissions =** | **1.61 lb/day** |
| **=** | **586 lb/year** |

# Fugitive Emission Calculations: S-3755-29-0

**Seneca Western Minerals Corporation**
**S3755, 1114686**

EPA Protocol for Equipment Leak Emission Estimate
*Table 2-4. Oil and Gas Production Operations*
*Average Emission Factors*

Weight percentage of VOC in the total organic compounds in gas (neglect non-organics)? 10 %
Weight percentage of VOC in the total organic compounds in oil (neglect non-organics)? 100 %

| Equipment Type | Service | Screening Value EF - TOC (kg/hr/source) | (lb/day/source) | Component Count | VOC emissions (lb/day) |
|---|---|---|---|---|---|
| Valves | Gas | 4.5E-03 | 2.381E-01 | 15 | 0.36 |
| | Heavy Oil | 8.4E-06 | 4.445E-04 | 0 | 0.00 |
| | Light Oil | 2.5E-03 | 1.323E-01 | 0 | 0.00 |
| | Water/Oil | 9.8E-05 | 5.185E-03 | 0 | 0.00 |
| Pump Seals | Gas | 2.4E-03 | 1.270E-01 | 0 | 0.00 |
| | Heavy Oil | N/A | N/A | 0 | N/A |
| | Light Oil | 1.3E-02 | 6.878E-01 | 0 | 0.00 |
| | Water/Oil | 2.4E-05 | 1.270E-03 | 0 | 0.00 |
| Others | Gas | 8.8E-03 | 4.656E-01 | 20 | 0.93 |
| | Heavy Oil | 3.2E-05 | 1.693E-03 | 0 | 0.00 |
| | Light Oil | 7.5E-03 | 3.968E-01 | 0 | 0.00 |
| | Water/Oil | 1.4E-02 | 7.408E-01 | 0 | 0.00 |
| Connectors | Gas | 2.0E-04 | 1.058E-02 | 105 | 0.11 |
| | Heavy Oil | 7.5E-06 | 3.968E-04 | 0 | 0.00 |
| | Light Oil | 2.1E-04 | 1.111E-02 | 0 | 0.00 |
| | Water/Oil | 1.1E-04 | 5.820E-03 | 0 | 0.00 |
| Flanges | Gas | 3.9E-04 | 2.064E-02 | 100 | 0.21 |
| | Heavy Oil | 3.9E-07 | 2.064E-05 | 0 | 0.00 |
| | Light Oil | 1.1E-04 | 5.820E-03 | 0 | 0.00 |
| | Water/Oil | 2.9E-06 | 1.534E-04 | 0 | 0.00 |
| Open-ended Lines | Gas | 2.0E-03 | 1.058E-01 | 0 | 0.00 |
| | Heavy Oil | 1.4E-04 | 7.408E-03 | 0 | 0.00 |
| | Light Oil | 1.4E-03 | 7.408E-02 | 0 | 0.00 |
| | Water/Oil | 2.5E-04 | 1.323E-02 | 0 | 0.00 |

| | |
|---|---|
| **Total VOC Emissions =** | **1.61 lb/day** |
| **=** | **586 lb/year** |

# APPENDIX E

# Technical Services Memo

# San Joaquin Valley Air Pollution Control District
# Risk Management Review

| | |
|---|---|
| To: | Jessica Seifert – Permit Services |
| From: | Cheryl Lawler – Technical Services |
| Date: | December 27, 2011 |
| Facility Name: | Seneca Resources |
| Location: | 25032 Western Minerals Road, Maricopa |
| Application #(s): | S-1114-116-2, 124-0, 125-0 |
| Project #: | S-1114686 |

## A. RMR SUMMARY

| RMR Summary | | | |
|---|---|---|---|
| **Categories** | **VOC Fugitive Emissions from Two New Tanks (Units 116-2, 124-0 & 125-0)** | **Project Totals** | **Facility Totals** |
| **Prioritization Score** | 0.00 | 0.00 | >1 |
| **Acute Hazard Index** | 0.00 | 0.00 | 0.12 |
| **Chronic Hazard Index** | 0.00 | 0.00 | 0.09 |
| **Maximum Individual Cancer Risk** | **2.21E-08** | 2.21E-08 | 3.63E-06 |
| **T-BACT Required?** | **No** | | |
| **Special Permit Conditions?** | **No** | | |

### I. Project Description

Technical Services received a request on December 6, 2011, to perform a Risk Management Review for VOC fugitive emissions from two new 500 BBL tanks connected to an existing vapor recovery system.

### II. Analysis

Toxic emissions were calculated using emission factors for toxic fugitive emissions from oilfield equipment, along with VOC fugitive emission rates supplied by the processing engineer. In accordance with the District's *Risk Management Policy for Permitting New and Modified Sources* (APR 1905-1, March 2, 2001), risks from the project were prioritized using the procedures in the 1990 CAPCOA Facility Prioritization Guidelines and incorporated in the District's HEART's database. The prioritization score for the project was less than 1.0 (see RMR Summary Table); however, the facility's combined prioritization scores totaled to greater than one. Therefore, a refined Health Risk Assessment was required and performed for the project. AERMOD was used with area source parameters outlined below and concatenated 5-year meteorological data from Bakersfield to determine maximum dispersion factors at the nearest residential and business receptors. The dispersion factors were input

into the HARP model to calculate the Chronic and Acute Hazard Indices and the Carcinogenic Risk.

The follcwing parameters were used for the review:

| Analysis Parameters | | | |
|---|---|---|---|
| **Source Type** | Area | **Closest Receptor (m)** | 674 |
| **Length of Sides** | 402 meters | **Type of Receptor** | Residence |
| **Release Height (m)** | 0.91 | **Location Type** | Rural |

## III. Conclusions

The acute and chronic indices are below 1.0; and the maximum individual cancer risk associated with the project is **2.21E-08**, which is less than the 1 in a million threshold. In accordance with the District's Risk Management Policy, the project is approved **without** Toxic Best Available Control Technology (T-BACT).

These conclusions are based on the data provided by the applicant and the project engineer. Therefore, this analysis is valid only as long as the proposed data and parameters do not change.

# APPENDIX F

# Draft Authorities to Construct

San Joaquin Valley
Air Pollution Control District

# AUTHORITY TO CONSTRUCT

DRAFT

**PERMIT NO:** S-3755-20-2 **ISSUANCE DATE:** DRAFT

**LEGAL OWNER OR OPERATOR:** SENECA WESTERN MINERALS CORP.
**MAILING ADDRESS:** 2131 MARS CT
BAKERSFIELD, CA 93308

**LOCATION:** HEAVY OIL WESTERN

**EQUIPMENT DESCRIPTION:**
MODIFICATION OF A 1,500 BBL WELDED FIXED ROOF WASH TANK WITH VAPOR RECOVERY SYSTEM VENTED TO THE CASING GAS GATHERING SYSTEM AND APPROVED INCINERATION DEVICES STEAM GENERATORS S-3755-11, '19, S-1114-113, AND/OR FLARE S-3755-10 AND SERVING TANKS S-3755-21, 22, 23, 24, 25, 26, AND 27: CONNECT VAPOR RECOVERY SYSTEM TO 500 BBL PRODUCED WATER TANK S-3755-28 AND 500 BBL SAND DUMP TANK S-3755-29

## CONDITIONS

1. {1829} The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Within 90 days of startup of the equipment authorized by this Authority to Construct, Permits to Operate S-3755-6, '7, '8, and '9 shall be surrendered to the District and the associated equipment shall be removed or rendered inoperable. [District Rule 2201]
3. This Authority to Construct (ATC) shall be implemented concurrently with or subsequently to ATCs S-3755-20-0 and S-3755-20-1. [District Rule 2201]
4. Authority to Construct (ATC) S-1114-113-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this Authority to Construct. [District Rule 2201]
5. The VOC content of the gas shall not exceed 10% by weight. [District Rule 2201]
6. Operator shall conduct quarterly gas sampling for gas exiting the separator pressure vessel to qualify for exemption from fugitive component counts for components handling fluids with VOC content equal to or less than 10% by weight. If gas samples are equal to or less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
S-3755-20-2 : Mar 26 2012 3:24PM -- RICKARDK : Joint Inspection NOT Required

7. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201]
8. The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device the reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.6. [District Rules 2201 and 4623]
9. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623]
10. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with EPA Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rule 4623]
11. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623]
12. Except as otherwise provided in this permit, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rules 2201]
13. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623]
14. Any component found to be leaking on two consecutive annual inspections is in violation of the District Rule 4623, even if it is under the voluntary inspection and maintenance program. [District Rules 2201 and 4623]
15. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 2201 and 4623]
16. Operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 1070]

San Joaquin Valley
Air Pollution Control District

# AUTHORITY TO CONSTRUCT

DRAFT

**PERMIT NO:** S-3755-28-0 **ISSUANCE DATE:** DRAFT

**LEGAL OWNER OR OPERATOR:** SENECA WESTERN MINERALS CORP.
**MAILING ADDRESS:** 2131 MARS CT
BAKERSFIELD, CA 93308

**LOCATION:** HEAVY OIL WESTERN

**EQUIPMENT DESCRIPTION:**
500 BBL WELDED FIXED ROOF PRODUCED WATER TANK CONNECTED TO THE VAPOR RECOVERY SYSTEM LISTED ON S-3755-20

## CONDITIONS

1. {1829} The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. This Authority to Construct (ATC) shall be implemented concurrently with ATC S-3755-20-2. [District Rule 2201]
3. The VOC content of the gas shall not exceed 10% by weight. [District Rule 2201]
4. Operator shall conduct quarterly gas sampling for gas exiting the separator pressure vessel to qualify for exemption from fugitive component counts for components handling fluids with VOC content equal to or less than 10% by weight. If gas samples are equal to or less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District Rule 2201]
5. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201]
6. The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device the reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.6. [District Rules 2201 and 4623]

CONDITIONS CONTINUE ON NEXT PAGE

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
S-3755-28-0 : Mar 26 2012 3:24PM -- RICKARDK : Joint Inspection NOT Required

7. Except as otherwise provided in this permit, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2201]
8. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623]
9. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with EPA Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rules 2201 and 4623]
10. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623]
11. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623]
12. Any component found to be leaking on two consecutive annual inspections is in violation of this permit, even if covered under the voluntary inspection and maintenance program. [District Rules 2201 and 4623]
13. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 2201 and 4623]
14. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201]

San Joaquin Valley
Air Pollution Control District

# AUTHORITY TO CONSTRUCT



**PERMIT NO:** S-3755-29-0 **ISSUANCE DATE:** DRAFT

**LEGAL OWNER OR OPERATOR:** SENECA WESTERN MINERALS CORP.
**MAILING ADDRESS:** 2131 MARS CT
BAKERSFIELD, CA 93308

**LOCATION:** HEAVY OIL WESTERN

**EQUIPMENT DESCRIPTION:**
500 BBL WELDED FIXED ROOF SAND DUMP TANK CONNECTED TO THE VAPOR RECOVERY SYSTEM LISTED ON S-3755-20

## CONDITIONS

1. {1829} The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. This Authority to Construct (ATC) shall be implemented concurrently with ATC S-3755-20-2. [District Rule 2201]
3. The VOC content of the gas shall not exceed 10% by weight. [District Rule 2201]
4. Operator shall conduct quarterly gas sampling for gas exiting the separator pressure vessel to qualify for exemption from fugitive component counts for components handling fluids with VOC content equal to or less than 10% by weight. If gas samples are equal to or less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. [District Rule 2201]
5. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201]
6. The tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank, and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. The VOC control device shall be either of the following: a vapor return or condensation system that connects to a gas pipeline distribution system, or an approved VOC destruction device the reduces the inlet VOC emissions by at least 95% by weight as determined by the test method specified in Section 6.4.6. [District Rules 2201 and 4623]

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director / APCO



DAVID WARNER, Director of Permit Services
S-3755-29-0 : Mar 26 2012 3:24PM -- RICKARDK : Joint Inspection NOT Required

7. Except as otherwise provided in this permit, the operator shall ensure that the vapor recovery system is functional and is operating as designed at all times. [District Rule 2201]
8. All piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rules 2201 and 4623]
9. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with EPA Method 21. A liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. [District Rules 2201 and 4623]
10. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rules 2201 and 4623]
11. All piping, fittings, and valves on this tank shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the leaking provisions of this permit. [District Rules 2201 and 4623]
12. Any component found to be leaking on two consecutive annual inspections is in violation of this permit, even if covered under the voluntary inspection and maintenance program. [District Rules 2201 and 4623]
13. Operator shall maintain an inspection log containing the following: 1) Type of component leaking; 2) Date and time of leak detection, and method of detection; 3) Date and time of leak repair, and emission level of recheck after leak is repaired; 4) Method used to minimize the leak to lowest possible level within 8 hours after detection. [District Rules 2201 and 4623]
14. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 2201]

# APPENDIX G

# Emission Profiles

# Application Emissions



| Permit #: S-3755-20-2 | **Last Updated** | |
|---|---|---|
| Facility: SENECA WESTERN MINERALS CORP. | 01/20/2012 | SEIFERTJ |

Equipment Pre-Baselined: NO

| | NOX | SOX | PM10 | CO | VOC |
|---|---|---|---|---|---|
| Potential to Emit (lb/Yr): | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | |
| Daily Emis. Limit (lb/Day) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | |
| Quarterly Net Emissions Change (lb/Qtr) | | | | | |
| Q1: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Q2: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Q3: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Q4: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | |
| Check if offsets are triggered but exemption applies | N | N | N | N | N |
| | | | | | |
| Offset Ratio | | | | | |
| | | | | | |
| Quarterly Offset Amounts (lb/Qtr) | | | | | |
| Q1: | | | | | |
| Q2: | | | | | |
| Q3: | | | | | |
| Q4: | | | | | |

# Application Emissions



| Permit #: S-3755-28-0 | **Last Updated** | |
|---|---|---|
| Facility: SENECA WESTERN MINERALS CORP. | 01/20/2012 | SEIFERTJ |

Equipment Pre-Baselined: NO

| | NOX | SOX | PM10 | CO | VOC |
|---|---|---|---|---|---|
| Potential to Emit (lb/Yr): | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | |
| Daily Emis. Limit (lb/Day) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | |
| Quarterly Net Emissions Change (lb/Qtr) | | | | | |
| Q1: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Q2: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Q3: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Q4: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | |
| Check if offsets are triggered but exemption applies | N | N | N | N | N |
| | | | | | |
| Offset Ratio | | | | | |
| | | | | | |
| Quarterly Offset Amounts (lb/Qtr) | | | | | |
| Q1: | | | | | |
| Q2: | | | | | |
| Q3: | | | | | |
| Q4: | | | | | |

# Application Emissions



| Permit #: S-3755-29-0 | **Last Updated** | |
|---|---|---|
| Facility: SENECA WESTERN MINERALS CORP. | 01/20/2012 | SEIFERTJ |

Equipment Pre-Baselined: NO

| | NOX | SOX | PM10 | CO | VOC |
|---|---|---|---|---|---|
| Potential to Emit (lb/Yr): | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | |
| Daily Emis. Limit (lb/Day) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | |
| Quarterly Net Emissions Change (lb/Qtr) | | | | | |
| Q1: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Q2: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Q3: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Q4: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | |
| Check if offsets are triggered but exemption applies | N | N | N | N | N |
| | | | | | |
| Offset Ratio | | | | | |
| | | | | | |
| Quarterly Offset Amounts (lb/Qtr) | | | | | |
| Q1: | | | | | |
| Q2: | | | | | |
| Q3: | | | | | |
| Q4: | | | | | |